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(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number  
**WO 2004/057715 A3**

(51) International Patent Classification<sup>2</sup>: **E21B 23/06**

CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NL, NO, NZ, OM, PG, PL, PT (utility model), PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:  
**PCT/NO2003/000410**

(22) International Filing Date: 9 December 2003 (09.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
20025911 10 December 2002 (10.12.2002) NO

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(81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, BE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BE, BJ, CE, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

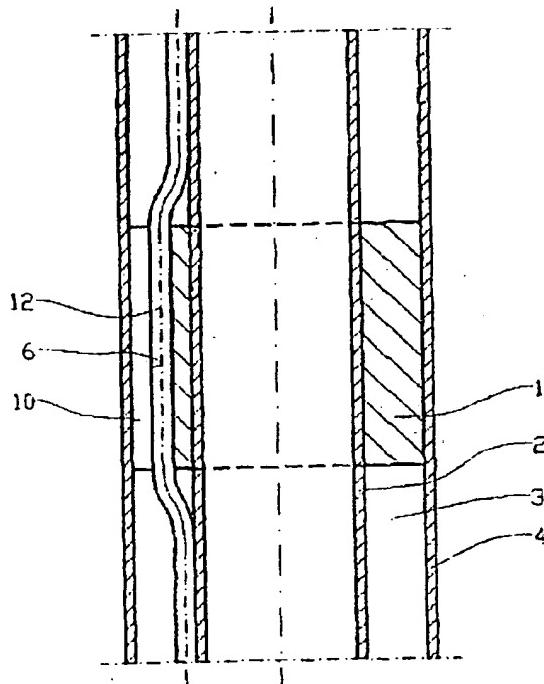
Published:

-- with international search report

*[Continued on next page]*

(54) Title: A CABLE DUCT DEVICE IN A SWELLING PACKER

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II-II

(57) Abstract: A cable duct device in a swellable packer (1) of the kind in which the packer (1) is adapted to be able of sealing an annulus (3), and in which the swellable packer (1) is provided with at least one opening (6) therethrough adapted to constitute a duct for a cable (12).

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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

14 October 2004

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/NO 2003/000410

### A. CLASSIFICATION OF SUBJECT MATTER

**IPC7: E21B 23/06**

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

**IPC7: E21B**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

**SE,DK,FI,NO classes as above**

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

### WPI DATA, EPO-INTERNAL

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6173788 B1 (JEFFREY J. LEMBECKE ET AL), 16 January 2001 (16.01.2001), See whole document --	1-5
X	US 3899631 A1 (BILLY E. CLARK), 12 August 1975 (12.08.1975), see whole document --	1-5
A	US 6135210 A1 (OLEGARIO S. RIVAS), 24 October 2000 (24.10.2000), column 4, line 61 - column 5, line 20 --	1-5
A	US 2242166 A1 (E. O. BENNETT), 13 May 1941 (13.05.1941), figures 3-4 ----	1-5

Further documents are listed in the continuation of Box C.

See patent family annex.

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- "A" document defining the general state of the art which is not considered to be of particular relevance
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- "O" document referring to an oral disclosure, use, exhibition or other means
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- "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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Date of the actual completion of the international search

18 August 2004

Date of mailing of the international search report

20-08-2004

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Information on patent family members

International application No.  
PCT/NO 2003/000410

US	6173788	B1	16/01/2001	GB	2336170	A,B	13/10/1999
				GB	9907757	D	00/00/0000
				NO	315437	B	01/09/2003
				NO	991638	A	08/10/1999
<hr/>							
US	3899631	A1	12/08/1975	NONE			
<hr/>							
US	6135210	A1	24/10/2000	CA	2277566	A	16/01/2000
				GB	2339816	A,B	09/02/2000
				GB	9915984	D	00/00/0000
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US	2242166	A1	13/05/1941	NONE			
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